In the Claims:

Kindly further amend the claims as follows:

1. (currently amended) Apparatus for dispensing material produced by a chemical reaction between a first chemical reagent and a second chemical reagent, comprising:

injection means configured to produce a jet of said first chemical reagent and a jet of said second chemical reagent such that said jets collide to produce said material;

a storage chamber arranged to provide temporary storage space for the material, said storage chamber having an inlet for receiving said material, an outlet for dispensing the material and a dispensing piston configured to dispense said material from said storage chamber;

position ~~sending~~ sensing means configured to provide a measure of the position of said dispensing piston along said storage chamber; and

a closing device moveable between a first position in which the material is prevented from passing through said outlet while allowing material to be received into the storage chamber through the inlet and a second position in which the material is allowed to be dispensed through said outlet.

2. (cancelled)

3. (previously presented) Apparatus according to claim 1, wherein said apparatus has control means configured to control the rate at which said dispensing piston dispenses said material.

4. (previously presented) Apparatus according to claim 1,

wherein said apparatus has control means configured to control the movement of said dispensing piston such that defined portions of the stored material are dispensed.

5. (cancelled)

6. (previously presented) Apparatus according to claim 1, wherein said dispensing piston for dispensing said material has: a first surface acted upon by hydraulic fluid; and a second surface acting upon said material which is smaller than said first surface, whereby the pressure applied to said material is larger than the hydraulic pressure applied to said piston.

7. (original) Apparatus according to claim 6, wherein said second surface is less than half of the area of the first surface.

8. (previously presented) Apparatus according to claim 1, wherein said storage chamber has a wall defining a plurality of orifices and said dispensing piston is configured to extrude built-up reacted material through said orifices.

9. (original) Apparatus according to claim 8, wherein said orifices are configured to be blocked by a layer of solidified material while fluid material is dispensed through said outlet.

10. (original) Apparatus according to claim 9, wherein a portion of said layer is regularly extruded during dispensing operations.

11. (original) Apparatus according to claim 8, wherein said orifices are defined in a wall having a plurality of raised

edges to assist extrusion through said orifices.

12. (original) Apparatus according to claim 8, wherein said orifices are defined in a wall having a cooling means for cooling material within said chamber.

13. (previously presented) Apparatus according to claim 1, wherein said closing device is a rod having an end which is moveable into said outlet to provide said first position and which is retractable into said storage chamber to provide said second position.

14. (previously presented) Apparatus according to claim 1, wherein said material is produced intermittently at a first rate, and said material is dispensed at a second different rate.

15. (original) Apparatus according to claim 14, wherein said first rate is higher than the second rate.

16. (previously presented) Apparatus according to claim 1, wherein said dispensed material is polyurethane produced by reacting a diol as the first chemical reagent with a diisocyanate as the second chemical reagent.

17. (previously presented) Apparatus according to claim 1, wherein said apparatus is configured to locate said closing device in said first position during material production, and subsequently locate said closing device in said second position during dispensing.

18. (previously presented) Apparatus according to claim 1, wherein said apparatus has:

a first mode of operation in which it is configured to

locate said closing device in said first position during material production, and subsequently locate said closing device in said second position during dispensing; and

a second mode of operation in which said apparatus is configured to locate said closing device in said second position during production of said material, such that material is dispensed during production.

19. (previously presented) Apparatus according to claim 1, including input interface means for receiving command instructions from a programmable control system.

20. (previously presented) Apparatus according to claim 1, wherein said injection means are arranged such that said jets collide in a production chamber having a piston for controlling said reaction, and said material is received at said storage chamber from said production chamber via a passage which is closeable by a third piston.

21. (previously presented) A method of dispensing material produced by a chemical reaction between a first chemical reagent and a second chemical reagent, said method comprising the steps of:

injecting a jet of said first chemical reagent and a jet of said second chemical reagent such that said jets collide to produce said material;

temporarily storing the material in a chamber having an inlet for receiving said material, and an outlet for dispensing the material;

moving a closing device between a first position in which the material is prevented from passing through said outlet and a second position in which the material is allowed to be dispensed through said outlet;

moving a dispensing piston within said storage chamber to dispense material from said storage chamber through said outlet; and

sensing the position of the dispensing piston to provide a measure of the position of the piston along the storage chamber.

22. (cancelled)

23. (original) A method according to claim 22, wherein the rate at which said piston dispenses said material is controlled.

24. (original) A method according to claim 22, wherein movement of said piston is controlled such that defined portions of the stored material are dispensed.

25. (previously presented) A method according to claim 21, wherein said piston for dispensing said material has a first surface acted upon by hydraulic fluid, and a second surface acting upon said material which is smaller than said first surface, whereby pressure is applied to said material which is larger than the hydraulic pressure applied to said piston.

26. (original) A method according to claim 25, wherein said second surface is less than half of the area of the first surface.

27. (previously presented) A method according to claim 1, wherein said storage chamber has a wall defining a plurality of

orifices and said piston is used to extrude built-up reacted material through said orifices.

28. (original) A method according to claim 27, wherein said orifices are blocked by a layer of solidified material while material in a fluid state is dispensed through said outlet.

29. (original) A method according to claim 28, wherein a portion of said layer is regularly extruded during dispensing operations.

30. (previously presented) A method according to claim 21, wherein said material is produced at a first rate, and said material is dispensed at a second different rate.

31. (original) A method according to claim 30, wherein said first rate is higher than the second rate.

32. (previously presented) A method according to claim 21, wherein said dispensed material is polyurethane produced by reacting a diol as the first chemical reagent with a diisocyanate as the second chemical reagent.

33. (previously presented) A method according to claim 21, wherein said closing device is located in said first position during material production, and said closing device is located in said second position during dispensing.

34. (previously presented) A method according to claim 21, wherein material is dispensed:

in a first mode of operation by locating said closing device in said first position during material production, and subsequently locating said closing device in said second position

during dispensing; and

in a second mode of operation by locating said closing device in said second position during production of said material, such that material is dispensed during production.

35. (previously presented) A method according to claim 21, in which command instructions are received at an input interface of a programmable control system.

36. (previously presented) Apparatus for dispensing material produced by a chemical reaction between a first chemical reagent and a second chemical reagent, comprising:

injection means configured to produce a jet of said first chemical reagent and a jet of said second chemical reagent such that said jets collide to produce said material;

a storage chamber arranged to provide temporary storage space for the material, said storage chamber having an inlet for receiving said material, an outlet for dispensing the material and a dispensing piston configured to dispense said material from said storage chamber;

a closing device moveable between a first position in which the material is prevented from passing through said outlet while allowing material to be received into the storage chamber through the inlet and a second position in which the material is allowed to be dispensed through said outlet;

wherein said closing device is a rod having an end which is moveable into said outlet of said storage chamber to provide said first position and which is retractable into said storage chamber

to provide said second position.

37. (previously presented) Apparatus according to claim 36, wherein said dispensing piston defines a bore, and said rod extends through said bore such that it is moveable with respect to said dispensing piston.

38. (previously presented) Apparatus according to claim 37, wherein said apparatus comprises position sensing means configured to provide a measure of the position of said dispensing piston along said storage chamber.